## Hurricane Risk to Air Force Bases May Be Broader Than Previously Thought

## By Col John Conway III, USAF (Ret)

An updated US hurricane risk model released on February 28, 2011 by Risk Management Solutions, Inc. (RMS) paints a broader picture of possible destruction than previous assessments. According to *Wall Street Journal* analyst Erik Holm, estimates for one-in-a-hundred years insured hurricane losses in Texas may double and along the Mid-Atlantic coast, they may rise more than 75%. <sup>1</sup> Key to this new projection is a better scientific understanding of what fuels a hurricane and when and where it loses its intensity as it moves inland. According to RMS projections, hurricanes do not lose intensity – and destructiveness – immediately upon making landfall. In some cases, hurricane force winds can continue inland for some distances.

For example, Hurricane Ike (2008 – a Category 2 hurricane)<sup>2</sup> was not downgraded to a Tropical Storm until it reached the town of Palestine, Texas, almost two hundred miles inland and only sixty-odd miles southeast of Dallas. Hurricane Hugo, which roared ashore near Charleston, South Carolina as a Category 4 hurricane in 1989, transited all of South Carolina and parts of North Carolina as a hurricane before finally being downgraded to a Tropical Storm in the mountains of Western North Carolina; a linear distance of almost 300 miles from where it had made landfall.<sup>3</sup>

Insurance risk managers, Mr. Holm reports, will take this data into consideration and will most likely revise hazard insurance rates upward.

If you draw an imaginary line two hundred miles inland along the Gulf of Mexico and Atlantic coast, an additional number of Air Force installations may be at risk of hurricane force winds than just those on or near the two coasts. Tracking

<sup>&</sup>lt;sup>1</sup> Erik Holm, "A New Hurricane Model is Broader." The Wall Street Journal, 28 February. p. C7.

<sup>&</sup>lt;sup>2</sup> A Category 2 Hurricane is defined as one having sustained winds between 96 and 110 miles per hour.

<sup>&</sup>lt;sup>3</sup> A category 4 hurricane has sustained winds between 131 and 155 miles per hour.

West to Northeast, this includes Randolph and Lackland AFBs (140+ miles inland); Maxwell AFB (about 115 miles due north of the Gulf); Moody AFB (about 110 miles inland from the Atlantic); Robins AFB (roughly 160 miles inland); Shaw AFB (about 80 miles inland); Pope Army Airfield (about 95 miles inland); and Seymour Johnson AFB (about 62 miles inland). In addition, Barksdale AFB, Louisiana sits at the outer edge of this 200 mile line of demarcation. This list does not take into consideration those assets of the Air National Guard and the Air Force Reserve, located at over a dozen locations lying within the 200 mile zone along the Gulf Coast and up the Atlantic Seaboard that also would be at risk.

Based on this new view, some adjustment in Air Force preparedness planning may be needed to meet next month's start of the 2011 hurricane season. To begin with, few of the bases catalogued above as "in the zone" should be the first choice for hurricane evacuations from nearby coastal bases. Hurricane evacuation is difficult enough; two hurricane evacuations from the same storm could cause serious logistical support problems. Second, all of these bases should review their infrastructure (roofs, outbuildings, etc.) to determine if they can withstand minimum hurricane force winds (*i.e.* sustained winds of 74 mph or greater). Reviewing the building standards used for coastal Air Force Bases would be a logical first step in assessing preparedness for those bases in the 200 mile zone. Since the National Hurricane Center notes that the United States has not had a land-falling hurricane since 2008, additional hurricane awareness training at Air Force installations may be prudent for those who've recently been assigned there.

Almost as ominous as the potential for inland hurricane damage, property insurers may potentially use this revised data set in an attempt to raise homeowner insurance rates in areas well away from what is traditionally considered "hurricane country." This could surprise Air Force families relocating to these areas and could create a reticence to buy homes and invest in rental property in the revised potentially affected areas.

<sup>&</sup>lt;sup>4</sup> Hurricane Ivan (2004) caused considerable wind damage near and even north of Maxwell AFB; which itself was as an evacuation base for coastal aircraft during the storm.

While the WSJ article points out that some states have control over rate increases through various state insurance oversight offices, it cautions that other states do not. Base housing offices and JAG offices should monitor local conditions to prevent unexpected rises in property insurance rates for Air Force families and, perhaps, for the Air Force itself.

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